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Docket No. 5118

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of
Harrold, Michael et al.

Group Art Unit: TBA

Serial No.: 10/780,963

Examiner: TBA

Filed: February 18, 2004

For:
Polyelectrolyte-coated Size-Exclusion
Ion-Exchange Particles

CERTIFICATE OF MAILING

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INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants submit herewith patents, publications or other information (listed on the attached Form PTO-1449) of which they are aware, which may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR §1.56.

This Information Disclosure Statement:

- (a) ☐ accompanies a new patent application submitted herewith.
- (b) ☒ is filed within three months after the filing date of the application or within three months after the date of entry of the national stage of a PCT application as set forth in 37 CFR §1.491.

- (c) ☐ as far as is known to the undersigned, is filed before the mailing date of a first Office action on the merits.
- (d) ☐ as far as is known to the undersigned, is filed before the mailing date of a first Office action after the filing of a request for continued examination under § 1.114.
- (e) ☐ is filed after the first Office Action and more than three months after the application's filing date or PCT national stage date of entry filing but, as far as is known to the undersigned, prior to the mailing date of either a final action under §1.113, a notice of allowance under §1.311, whichever occurs first, and is accompanied by either the fee (\$180) set forth in 37 CFR §1.17(p) or a certification as specified in 37 CFR §1.97(e), as checked below. Should any fee be due, the U.S. Patent and Trademark Office is hereby authorized to charge Deposit Account No. 01-2213 in the amount of \$180.00 to cover the cost of this Information Disclosure Statement. Any deficiency or overpayment should be charged or credited to this deposit account. **A duplicate of this sheet is enclosed.**
- (f) ☐ is filed after the mailing date of either a final rejection or a notice of allowance, but on or before the payment of the issue fee, and is accompanied by the fee (\$180) set forth in 37 CFR §1.17(i)(1) **and** a certification as specified in 37 CFR §1.97(e), as checked below. **This document is to be considered as a petition requesting consideration of the information disclosure statement.** The U.S. Patent and Trademark Office is hereby authorized to charge Deposit Account No. 01-2213 in the amount of \$180.00 to cover the cost of this Information Disclosure Statement. Any deficiency or overpayment should be charged or credited to this deposit account. **A duplicate of this sheet is enclosed.**

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- ☐ Each item of information contained in the information disclosure statement was first cited in a communication mailed from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this information disclosure statement.
- ☐ No item of information contained in this information disclosure statement was cited in a communication mailed from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this information disclosure statement.

A copy of the items on PTO/SB/08A that are not United States Publications:

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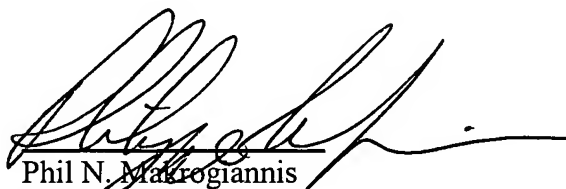
While the information and references disclosed in this Information Disclosure Statement may be "material" pursuant to 37 CFR §1.56, it is not intended to constitute an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

In accordance with 37 CFR §1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR §1.56(a) exists. It is submitted that the Information Disclosure Statement is in compliance with 37 CFR §1.98 and MPEP §609 and the Examiner is respectfully requested to consider the listed references.

Respectfully submitted,

Date: _____

3/8/04



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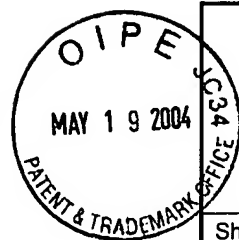
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Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 3

Complete if Known

Application Number	10/780,963
Filing Date	February 18, 2004
First Named Inventor	Harrold, Michael
Group Art Unit	TBA
Examiner Name	TBA
Attorney Docket No.	5118

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	01	RE 24,865 (2,636,851)		Juda et al.	04-28-1953	
	02	3,247,133		Chen	04-19-1966	
	03	3,304,272		Zenftman	02-14-1967	
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	06	3,965,039		Chaplits et al.	06-22-1976	
	07	4,100,149		Meiller et al.	07-11-1978	
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	09	4,414,111		Iwaisako et al.	11-08-1983	
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	35	5,707,812		Horn et al.	01-13-1998	
	36	5,747,663		Colpan et al.	05-05-1998	

Examiner Signature	Date Considered
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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				Filing Date	February 18, 2004
				First Named Inventor	Harrold, Michael
				Group Art Unit	TBA
				Examiner Name	TBA
				Attorney Docket No.	5118
Sheet	2	of	3		

	37	5,834,633		Davison	11-10-1998	
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	39	5,856,192		Bloch	01-05-1999	
	40	5,936,004		Altmeier	08-10-1999	
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	44	6,241,980	B1	Collis et al.	06-05-2001	
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	53	2002/0052006	A1	Dunayevskiy et al.	05-02-2002	
	54	6,572,766	B1	Bergstrom et al.	06-03-2003	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T ²
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
	55	GB	693,166		Kressman	06-24-1953		
	56	KR	8001597		Chung	12-29-1980		
	57	EP	0143369	B2	Kuroda et al.	06-05-1985		
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	59	WO	99/22868	A1	Laugharn et al.	05-14-1999		
	60	JP	2830107	B2	Inoue et al.	03-06-1991		X
	61	JP	2001009274	A	Akihiko et al.	01-16-2001		X
	62	JP	2002136882	A	Naoko	05-14-2002		X
	63	JP	2002219367	A	Kazuaki et al.	08-06-2002		X

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OTHER ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	64	ADVINCULA, Rigoberto C., <i>Polymeric Materials: Science & Engineering</i> 90, 70-71 (2004)	
	65	AHN et al., <i>Polymeric Materials: Science & Engineering</i> 90, 4-5 (2004)	
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	69	GRIMM et al., <i>Chromatographia</i> 52, 703 (2000)	
	70	HARRIS et al., <i>J. Am. Chem. Soc.</i> 121, 1978 (1999)	
	71	HALLER, Wolfgang, "Solid Phase Biochemistry," Chapter 11, <i>John Willy & Sons</i> , New York, (1983)	
	72	JONAS et al., <i>Polymeric Materials: Science & Engineering</i> 90, 129-130 (2004)	
	73	KOTCHEGAROVA et al., HPLC 2002: Abstract #444, Montreal, Canada (2002)	
	74	LI et al., <i>Polymeric Materials: Science & Engineering</i> 90, 2 (2004)	
	75	MACHTEJEVAS et al., HPLC 2002: Abstract #425, Montreal, Canada (2002)	
	76	MENDELSON et al., <i>Langmuir</i> 16, 5017-5023 (2000)	
	77	PARK et al., <i>Polymeric Materials: Science & Engineering</i> 90, 133-134 (2004)	
	78	QUINN et al., <i>Polymeric Materials: Science & Engineering</i> 90, 131 (2004)	
	79	SHIRATORI et al., <i>Macromolecules</i> 33, 4213 (2000)	
	80	TAI, et al., <i>Polym. National Sci Eng.</i> , 86, 235 (2002)	
	81	UOSAKI et al., <i>Polymeric Materials: Science & Engineering</i> 90, 124 (2004)	
	82	WAGNER et al., ISPPP2000, Ljubljana, Slovenia (2000)	
	83	ZHANG, et al., <i>Polymeric Materials: Science & Engineering</i> 90, 64 (2004)	

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